

**DRAFT SCREENING SITE INVESTIGATION  
FOR THE  
RELIABLE METALS REFINING COMPANY  
3318 MEMPHIS STREET  
PHILADELPHIA, PENNSYLVANIA  
ECKEL SITE NUMBER 316**

Prepared for

U.S. Environmental Protection Agency Region 3  
Hazardous Property Cleanup Division  
1650 Arch Street  
Philadelphia, PA 19103

Prepared by

Tetra Tech EM Inc.  
7 Creek Parkway, Suite 700  
Boothwyn, PA 19061

Remedial Action Contract No. 68-S7-3002  
Work Assignment No. 048-PAPA-03ZZ  
Project No. I4185.47502.0903

February 7, 2007

## CONTENTS

<b><u>Section</u></b>	<b><u>Page</u></b>
1.0 INTRODUCTION .....	1
2.0 SITE LOCATION.....	2
3.0 SITE OBSERVATIONS.....	3
4.0 POTENTIAL TARGETS.....	4
5.0 FINDINGS AND RECOMMENDATIONS.....	5
REFERENCES .....	6

## APPENDIX

- A FIGURES
- B PHOTOGRAPHIC DOCUMENTATION

## **1.0 INTRODUCTION**

Under Remedial Action Contract (RAC) No. 68-S7-3002, Work Assignment No. 048-PAPA-03ZZ, U.S. Environmental Protection Agency (EPA) Region 3 tasked Tetra Tech, Inc. (Tt), to assist EPA Region 3 in the assessment of properties suspected to have been former lead smelter foundries. Tt subcontracted completion of this work assignment to Tetra Tech EM Inc. (Tetra Tech).

Former lead smelter sites nationwide were identified in an April 2001 article published in the American Journal of Public Health by Eckel, and others (Eckel study) (Reference [Ref.] 1). The majority of these lead smelters operated prior to 1964 and closed before the current environmental regulations were instituted. As part of the Eckel study, soil samples were collected from several of the identified former lead smelter properties. Results from the analysis of these soil samples indicated that concentrations of lead exceeded EPA's recommended screening level for lead in residential soils. The results of the Eckel study indicate that the air disposition of lead into soils from the former smelter operations may present an ongoing public health concern due to exposure of residential populations, especially children, located in the vicinity of these former lead smelters, to soils containing elevated concentrations of lead (Refs. 1, 2, and 3).

The Eckel study identified 77 properties that may have been formerly used as lead smelters within EPA Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia). EPA Region 3 is currently investigating these 77 properties. The objective of EPA's investigation of these properties is to (1) determine the potential for lead-contaminated soil to be present at the former lead smelter site or nearby properties (2) identify any populations that may be at risk to exposure to this soil, and (3) determine if soil sampling is warranted at any of these sites or nearby properties.

The following activities were completed as part of the initial screening investigation of each of these former lead smelter sites: (1) verify the former lead smelter address listed in the Eckel

study through historical Sanborn fire insurance maps, tax parcel information, and/or contacting local agencies, (2) determine if the site is listed in EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, (3) determine through census information and existing maps the number of schools, daycare centers or recreational parks that exist near the former lead smelter site, (4) determine the population residing within a 4-mile radius of the site, (5) conduct a windshield reconnaissance of the site and surrounding area to document the current land use, identify any exposed soil and verify the existence of any schools, daycare centers or parks in the immediate area, and (6) review all information acquired to determine if the collection and analysis of soil samples is warranted at the site or at any nearby property.

This report summarizes the findings of the tasks outlined above for the former lead smelter known as the Reliable Metals Refining site located at 3318 Memphis Street, Philadelphia, Pennsylvania, 19134. Each former smelter property was given a number in Eckel's study. The Eckel study number for this site is 316 (Ref. 1).

## **2.0 SITE LOCATION**

The former Reliable Metals Refining facility was located 3318 Memphis Street, Philadelphia, Pennsylvania, 19134. The geographic coordinates of the former Reliable Metals Refining facility are 39.99235° north latitude and 75.100897° west longitude on the Camden, New Jersey-Pennsylvania Quadrangle, 7.5 minute series, United States Geological Survey topographic map (see Appendix A, Figure 1). The site is not currently listed in EPA's CERCLIS database (Ref. 4). An aerial photograph of the vicinity of the former lead smelter site has been included in Appendix A, Figure 2. This aerial photograph reveals the exposed soils and any identified areas of potential concern such as schools, daycare centers, or parks located within a half-mile radius of the site.

### **3.0 SITE OBSERVATIONS**

On September 6, 2005, Tetra Tech completed a non-sampling windshield reconnaissance of the Reliable Metals Refining Company site and surrounding area. A photographic record of the current site conditions is included in Appendix B. Figure 3, shows the current layout of the site and surrounding area as observed during Tetra Tech's site reconnaissance. The following observations were recorded:

- The subject property is now occupied by the Philadelphia Dialysis Center located at 3318 Memphis Street in Philadelphia, Pennsylvania. Previously, the building was Georgi's Restaurant, which was built on the lot where the former lead smelter was formerly located. The property is located in a mixed residential and commercial area.
- A parking lot is adjacent to the subject property to the northeast of the building. Directly south-southeast of the subject property on the opposite side of Memphis Street is the back of a strip mall that fronts the 3300 block of Aramingo Avenue. Directly north of the subject property, behind the dialysis center building, are residential homes along Agate Street. Southwest of the subject property along Memphis Street is an ice cream and steak sandwich shop. Further south-southwest of the subject property are residential row homes.
- No schools, daycare centers, or parks were identified in the immediate vicinity of the subject property.
- With the exception of a few residential yards along Agate Street, the area is generally paved with cement sidewalks and no exposed soils.

#### 4.0 POTENTIAL TARGETS

Potential targets identified that may be exposed to lead-contaminated soils remaining in the vicinity of the former Reliable Metals Refining site include the nearby residential population and any workers that may be employed at or in the nearby vicinity of the site. The population within a 4-mile radius of the site is summarized in the table below (Ref. 5).

**Population within a Four-mile Radius of the Site**

<b>Distance Ring (miles)</b>	<b>Population (number of persons)</b>
0.0 to 0.25	1,359
0.25 to 0.5	14,274
0.5 to 1.0	31,517
1.0 to 2.0	86,808
2.0 to 3.0	176,062
3.0 to 4.0	265,001

Source: U.S. Department of Commerce. Landview V Environmental Mapping Software based on the Bureau of Census 2000 Population Data. December 6, 2005.

No schools, daycare centers, parks, or recreational areas have been identified in the area directly surrounding the site. No daycare centers were identified within one-quarter mile of the site. Four schools were identified within one-quarter mile of the site. Nativity School is located approximately one-quarter mile south of the site. Webster School is one-third mile north of the site. St. Alberts School and Mastbaum School are located approximately one-half mile south and northwest of the site, respectively. Two parks, Allegheny Square and Fox Square, are located approximately one-third mile south and west of the site.

## **5.0 FINDINGS AND RECOMMENDATIONS**

The site is located in a mixed residential and commercial area of Philadelphia, Pennsylvania. Minimal areas of exposed soils were observed in the nearby vicinity of the property formerly used as a lead smelter. Adjacent to the former lead smelter property to the north are residential properties with small yards; therefore, to determine if there is a threat to the residential population from elevated levels of lead in soils, it is recommended that soil samples be collected from nearby residential yards and analyzed for lead levels.

## REFERENCES

1. Eckel, W.P., Rabinowitz, M.B., Foster, G.D. American Journal of Public Health. "Discovering Unrecognized Lead-Smelting Sites by Historical Methods". April 2001.
2. Pennsylvania Department of Health. Suspected Former Lead Smelter Sites: A Potential Risk Factor for Childhood Lead Poisoning. August 2004.
3. U.S. Environmental Protection Agency (EPA). Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12. July 14, 1994.
4. U.S. EPA. Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) database. On-Line Address: <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>
5. U.S. Census Bureau. State and County Quick Facts. Accessed On-Line on December 6, 2005. On-Line Address: [quickfacts.census.gov/qfd/states/42.html](http://quickfacts.census.gov/qfd/states/42.html).



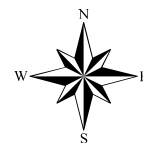
## **Appendix A**

### **Figures**



0 0.25 0.5  
Miles  
Scale in Miles

Reliable Metals Refining  
3318 Memphis Street  
Philadelphia, Pennsylvania  
Eckel Site No. 316

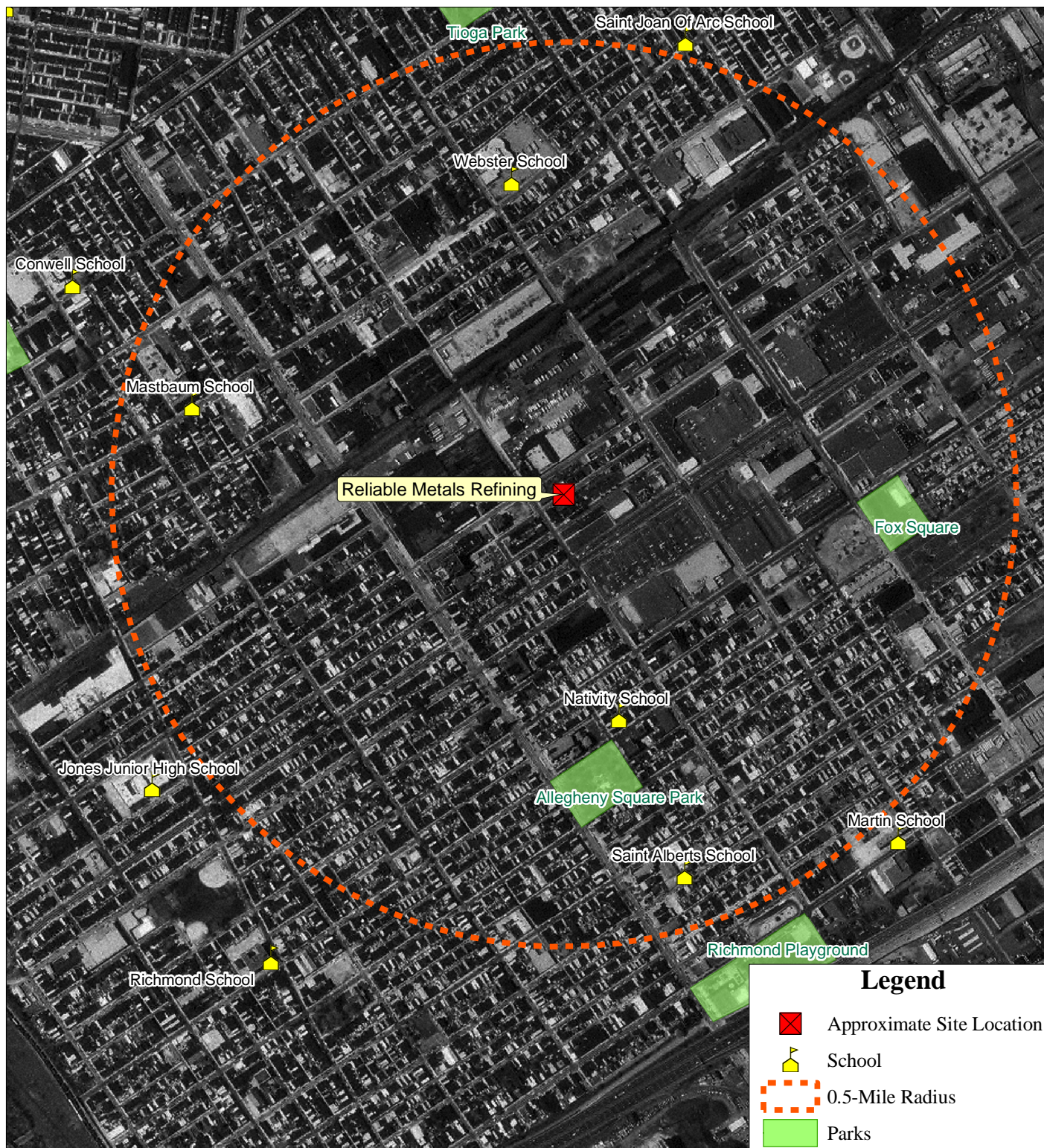


**Figure 1**  
Site Location Map





Source: Modified from USGS 7.5-Minute Series Topographic Quadrangles, Camden, New Jersey - Pennsylvania; Frankford, Pennsylvania-New Jersey; Germantown, Pennsylvania; Philadelphia, Pennsylvania - New Jersey






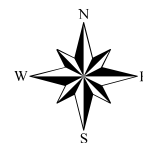


### Legend

-  Approximate Site Location
-  School
-  0.5-Mile Radius
-  Parks

0 500 1,000  
 Feet  
 Scale in Feet

Reliable Metals Refining  
 3318 Memphis Street  
 Philadelphia, Pennsylvania  
 Eckel Site No. 316

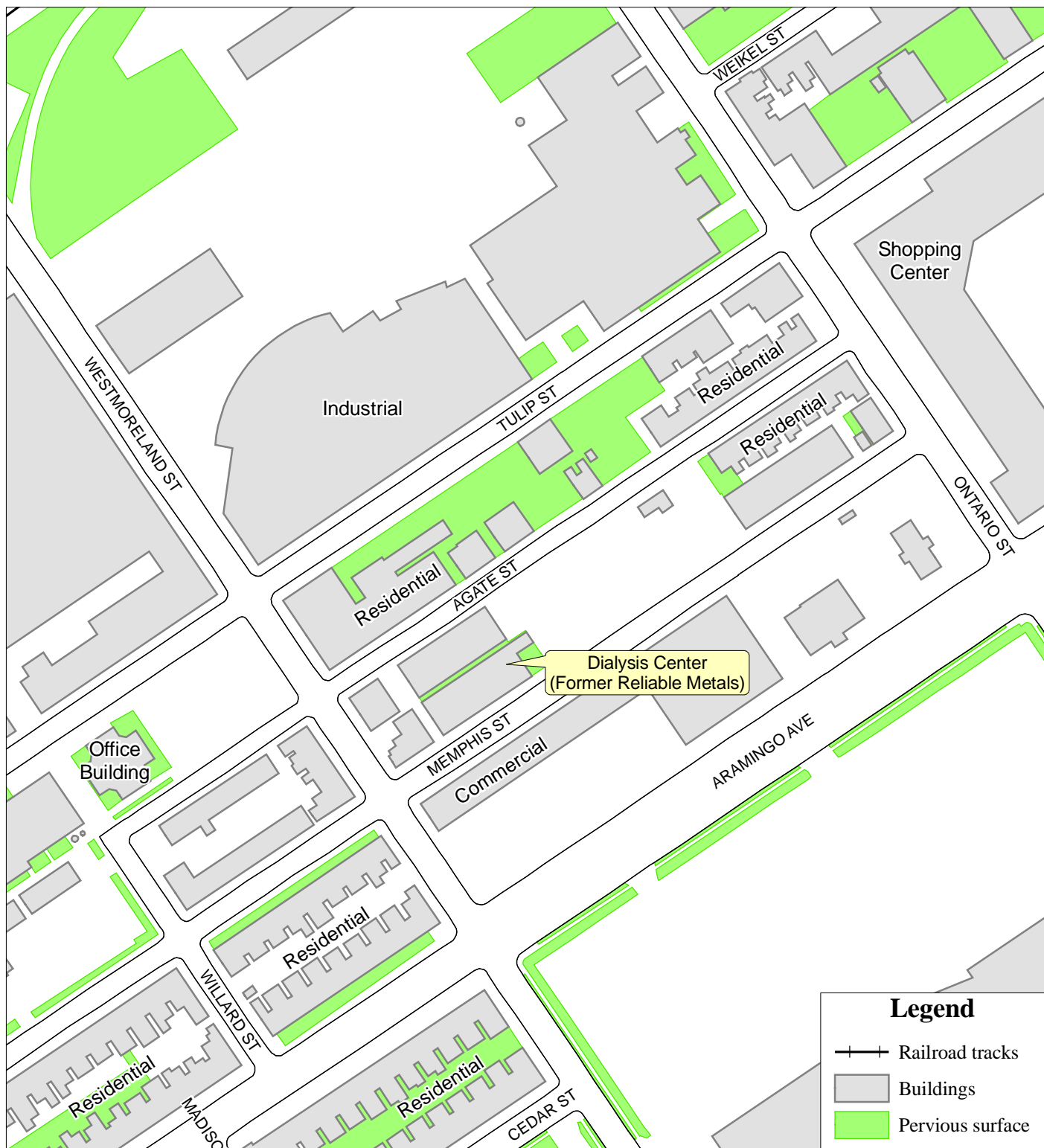


**Figure 2**  
 Aerial Photograph

Source: Modified from Digital Orthophoto (DOQQ) MrSID mosaic for Camden Quadrangle (NAPP III, 1997-2001)





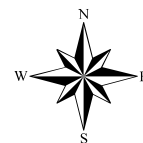


**Legend**

- +— Railroad tracks
- Buildings
- Pervious surface

0 100 200  
  
 Feet  
 Scale in Feet

**Reliable Metals Refining**  
 3318 Memphis Street  
 Philadelphia, Pennsylvania  
 Eckel Site No. 316



**Figure 3**  
 Site Layout Map

Source: Modified from Philadelphia City Planning Commission (PCPC) Department - GIS Division, 2006.



**Appendix B**  
**Photographic Documentation**



## *Photographic Documentation*

**Site Name:** Reliable Metals Refining – Eckel Number 316

**Prepared by:** Tetra Tech EM Inc.

**Location:** 3318 Memphis Street, Philadelphia,  
Pennsylvania

**Photographer:** [REDACTED]

### **Photograph No. 1**

**Photograph Date:**  
September 6, 2005

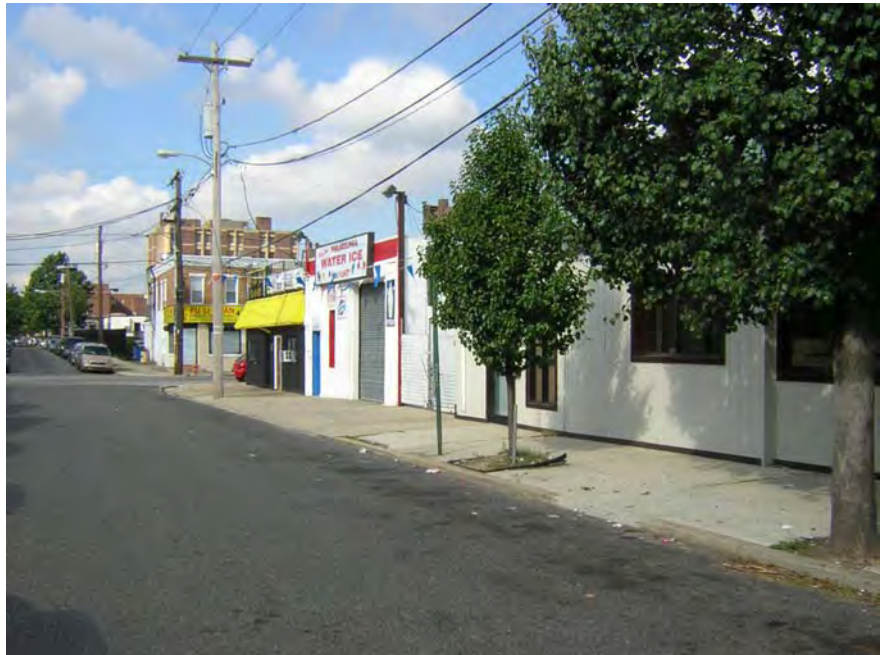
**Description:** View of subject property at 3318 Memphis St. now occupied by the Philadelphia Dialysis center.



### **Photograph No. 2**

**Photograph Date:**  
September 6, 2005

**Description:** View of commercial properties along Memphis Street southwest of subject property.







## *Photographic Documentation*

**Site Name:** Reliable Metals Refining – Eckel Number 316

**Prepared by:** Tetra Tech EM Inc.

**Location:** 3318 Memphis Street, Philadelphia,  
Pennsylvania

**Photographer:** [REDACTED]

### **Photograph No. 3**

**Photograph Date:**  
September 6, 2005

**Description:** View of the north  
side of subject property.



### **Photograph No. 4**

**Photograph Date:**  
September 6, 2005

**Description:** View of subject  
property parking lot adjacent to  
building and of residential row  
homes located north of subject  
property along Agate Street.





## *Photographic Documentation*

**Site Name:** Reliable Metals Refining – Eckel Number 316

**Prepared by:** Tetra Tech EM Inc.

**Location:** 3318 Memphis Street, Philadelphia,  
Pennsylvania

**Photographer:** [REDACTED]

### **Photograph No. 5**

**Photograph Date:**  
September 6, 2005

**Description:** View of the back of the dialysis center and residential homes along Agate Street.



### **Photograph No. 6**

**Photograph Date:**  
September 6, 2005

**Description:** Back side of subject property from Agate Street.







## *Photographic Documentation*

**Site Name:** Reliable Metals Refining – Eckel Number 316

**Location:** 3318 Memphis Street, Philadelphia,  
Pennsylvania

**Prepared by:** Tetra Tech EM Inc.

**Photographer:** [REDACTED]

**Photograph No. 7**

**Photograph Date:**  
September 7, 2005

**Description:** Intersection of  
Memphis and Westmoreland  
Streets showing commercial  
properties south of subject  
property.

